

# Owner's Manual

## SmartOnline™ 3-Phase 10kVA Intelligent True On-Line UPS System (Tower)

Input (Voltage/Phase): 270 - 485V AC / Y, 3Ø4W

Output (Voltage/Phase): User-Selectable 220/230/240V AC / 1Ø2W

*For all UPS system modules (power module and battery module) sold either separately or combined. Select UPS system modules may include separate instruction or warning sheets which should be used in conjunction with this manual.*

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1111 W. 35th Street • Chicago, IL 60609 USA  
(773) 869-1234 • [www.tripplite.com](http://www.tripplite.com)

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# Important Safety Warnings



SAVE THESE INSTRUCTIONS. This manual contains important instructions and warnings that should be followed during the installation and maintenance of all Tripp Lite SmartOnline 3-Phase UPS Systems and their batteries.

## UPS Location Warnings

- Install your UPS indoors, away from heat, direct sunlight, dust, and excess moisture or other conductive contaminants.
- Install your UPS in a structurally sound area. Your UPS is extremely heavy; take care when moving and lifting the unit.
- Only operate your UPS at indoor temperatures between 32° F and 104° F (between 0° C and 40° C). For best results, keep indoor temperatures between 62° F and 84° F (between 17° C and 29° C).
- Leave adequate space around all sides of the UPS for proper ventilation: 12 in. (30 cm.) clearance at the rear; 4 in. (10 cm.) at sides and on top.
- Do not install the UPS near magnetic storage media, as this may result in data corruption.

## UPS Connection Warnings

- The power supply for this unit must be three phase rated in accordance with the equipment nameplate. It also must be suitably grounded according to all applicable local electrical wiring regulations.

## Equipment Connection Warnings

- Do not use Tripp Lite UPS Systems in life support applications in which a malfunction or failure of a Tripp Lite UPS System could cause failure or significantly alter the performance of a life support device.
- Connect your UPS's Grounding Terminal to a grounding electrode conductor.
- The UPS system contains its own energy source (battery). The output terminals may be live even when the UPS is not connected to an AC supply.

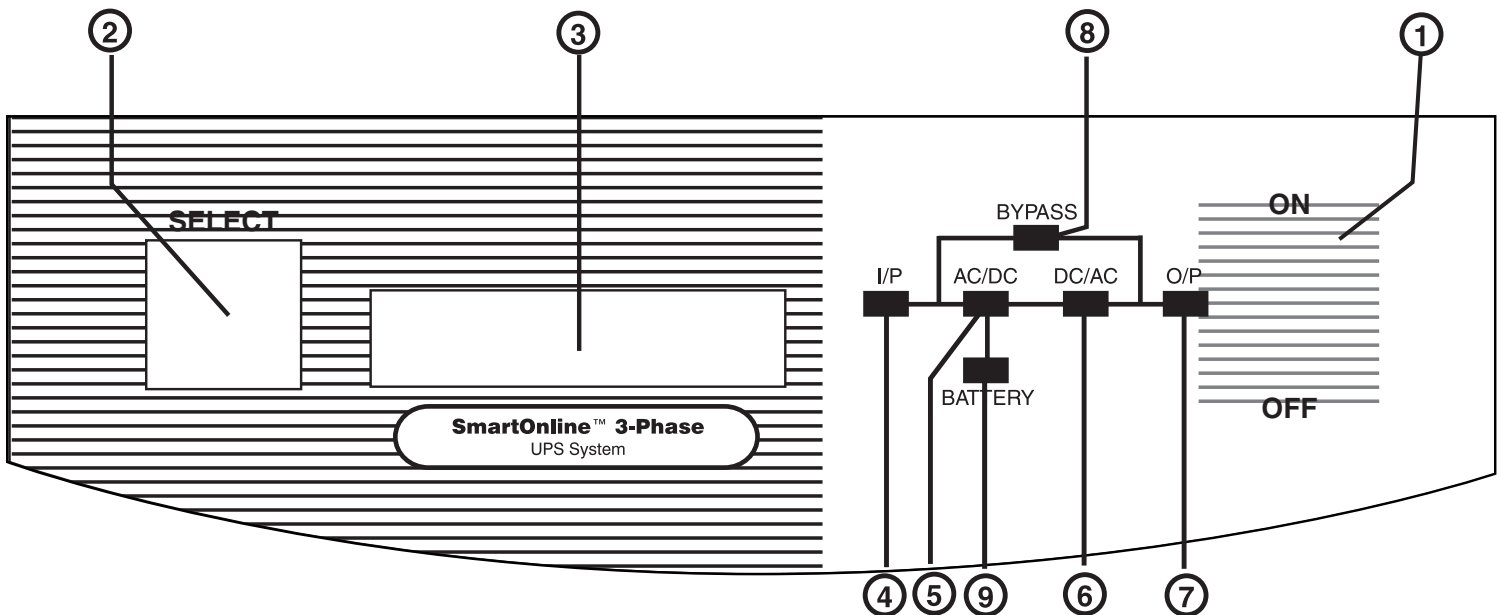
## Battery Warnings

- Your UPS does not require routine maintenance. Do not open your UPS for any reason. There are no user-serviceable parts inside.
- The batteries in your battery module are recyclable. Refer to local codes for disposal requirements, or if in the USA call 1-800-SAV-LEAD (1-800-728-5323) for complete recycling information. CAUTION: Do not dispose of the batteries in a fire, as this could cause the battery to explode.
- Because the batteries present a risk of electrical shock and burn from high short-circuit current, batteries should be changed only by trained service personnel observing proper precautions. Consult your battery module manual before proceeding. Remove watches, rings, and other metal objects. Use tools with insulated handles. Wear rubber gloves and boots. Do not lay tools or metal parts on top of the batteries. Do not short or bridge the battery terminals with any object. Disconnect the charging source prior to connecting or disconnecting battery terminals. Determine if the batteries are inadvertently grounded. If inadvertently grounded, remove the source of the ground. Contact with any part of a grounded battery can result in electrical shock. The likelihood of such shock will be reduced if such grounds are removed during installation and maintenance.
- Connect only Tripp Lite battery packs to your UPS's external battery connectors.
- Do not operate your UPS without batteries.
- Fuses should be replaced only by factory authorized personnel. Blown fuses should be replaced only with fuses of the same number and type.
- Potentially lethal voltages exist within this unit as long as the battery supply is connected. Service and repair should be done only by trained personnel. During any service work, the UPS should be turned off or put into manual bypass.
- During "hot-swap" battery replacement (when the UPS is on manual bypass and connected equipment is turned ON) your UPS will be unable to provide battery backup in the event of a blackout.
- Do not connect or disconnect the battery modules while the UPS is operating from the battery supply or when the unit is not in bypass mode.

# Control Panel

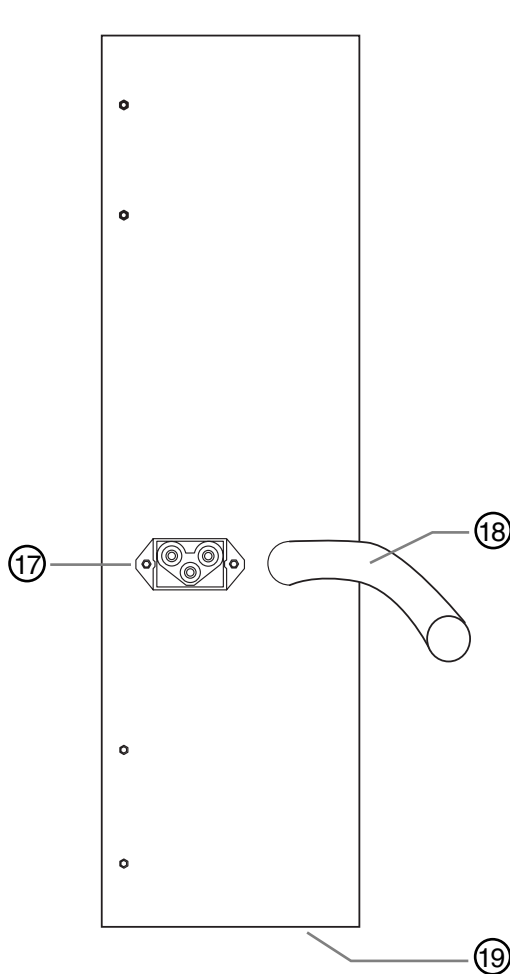
There are two separate UPS system modules: a power module and a battery module. Familiarize yourself with the location and function of the features on each module before installing and operating your UPS system. The power module is the only module which includes front panel features.

## FRONT PANEL

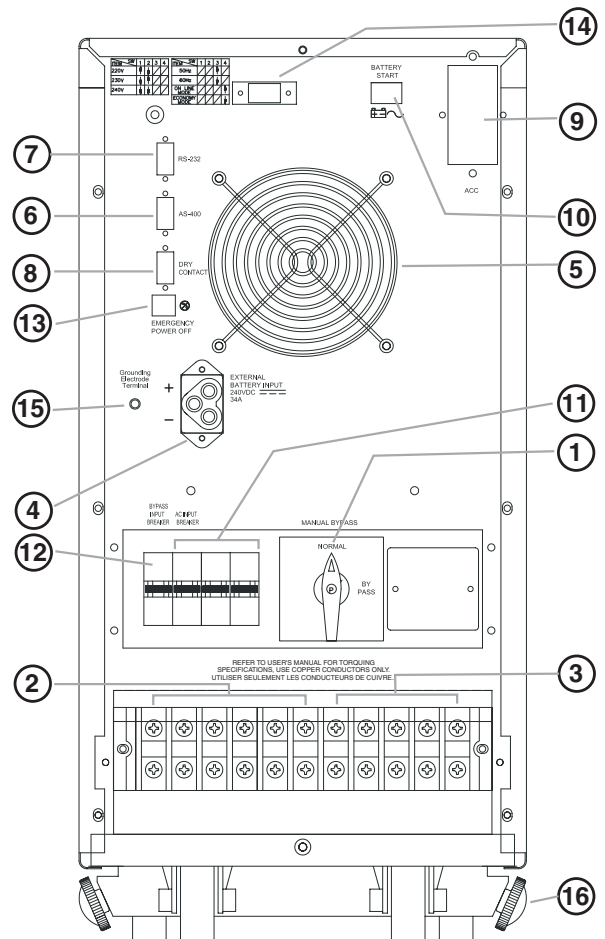


1. **"ON/OFF" Switch:** This momentary rocker switch turns the UPS System's inverter ON and OFF.
2. **"SELECT" Button:** This button performs two functions: it allows you to browse through different power readings on the LCD Display by momentarily pressing the button; it also allows you to silence the UPS alarm by pressing and holding the button for 3 seconds.
3. **LCD Display:** This backlit (16x2 character) dot matrix display indicates a wide range of UPS operating conditions and diagnostic data. It will illuminate after you have properly completed installation and start-up and after the "ON/OFF" Switch is turned ON.
4. **"I/P" (Input) LED:** This green light will illuminate constantly to indicate an AC input supply is present.
5. **"AC/DC" (Converter) LED:** This green light will illuminate constantly to indicate the UPS's AC/DC converter is activated.
6. **"DC/AC" (Inverter) LED:** This green light will illuminate constantly to indicate the UPS's DC/AC inverter is activated.
7. **"O/P" (Output) LED:** This green light will illuminate constantly to indicate your UPS is supplying AC power to connected equipment.
8. **"BYPASS" LED:** This green light will illuminate when the UPS is providing filtered mains power without engaging its converter or inverter. Connected equipment will not receive battery power in the event of a blackout.
9. **"BATTERY" LED:** This red light will illuminate when the UPS is discharging the battery to provide connected equipment with AC power. An alarm will sound which can be cancelled by pressing and holding the "SELECT" switch for 3 seconds. The alarm will be cancelled, but the LED will remain illuminated.

# Rear Panels



**Battery Module Rear Panel**



**Power Module Rear Panel**

**1. Manual Bypass Switch:** This switch is used in one step of putting the UPS in "MANUAL BYPASS" mode, which must be done before performing any maintenance on the UPS with the connected load supported. [See "Operation (Special Conditions)" for step-by-step instructions for going into "MANUAL BYPASS."] While this switch is on "MANUAL BYPASS," connected equipment will receive filtered AC mains power, but will not receive battery power in the event of a blackout.

**2. Input Terminal Block:** Use these terminals to connect your UPS to the AC main power input. Unscrew and remove terminal block plate for access.

**3. Output Terminal Block:** Use these terminals to connect your UPS to equipment. A plate covering the terminal block must be unscrewed and removed for access.

**4. External Battery Connector:** Use this to connect a Tripp Lite battery module to the power module. Remove the cover for access. The power module will not start without a connection to a charged battery module. Refer to the battery module owner's manual for connection instructions and safety warnings.

**5. Exhaust Fan:** This cools and ventilates the inside of the UPS.

**6. AS-400 Interface Port:** This female DB9 port connects your UPS to an IBM AS-400 computer interface via the AS-400 Cable included. It uses AS-400 communications to report UPS status and power conditions. Using this port, an IBM AS-400 computer can automatically save open files and shut down its operating system during a blackout. See "Communications" for details.

**7. "Smart" RS-232 Interface Port:** This female DB9 port connects your UPS to a workstation or server. It uses RS-232 communications to report UPS and power conditions. It is used with Tripp Lite software and the included RS-232 Cable to monitor and manage network power and to automatically save open files and shut down equipment during a blackout. See "Communications" for details.

**8. Dry Contact Interface Port:** This female DB9 port sends contact-closure signals to indicate line-fail and low-battery status. See "Communications," for details.

**9. Accessory Slot:** Remove the small cover panel and use optional accessories to remotely control and monitor your UPS. Contact Tripp Lite Customer Support for more information and a list of available SNMP, network management and connectivity products.

# Rear Panels *(continued)*

**10. “Battery Start” Switch:** This momentary rocker switch allows you to “cold-start” your UPS and use it as a stand-alone power source when utility-supplied AC power is not present. The switch enables the UPS’s DC/AC Inverter. Before “cold-starting” your UPS, make sure your power module and external battery module(s) are properly installed. Press and hold the “Battery Start” Switch and then press the “ON/OFF” switch to turn your UPS ON. To turn it OFF after “cold-start,” press the “ON/OFF” Switch.

**11. AC Input Breaker:** Controls input power to the UPS during normal operation.

**12. Bypass AC Input Breaker:** Controls input power to the UPS during “BYPASS” operation.

**13. Remote “Emergency Power OFF” (EPO) Connector:** This modular jack allows remote emergency shutdown. See “Communications” for details.

**14. Inverter Operation DIP Switches:** Behind this removable panel are four DIP Switches that should be set to match your input voltage and input frequency. Your input voltage and frequency DIP switch settings **MUST** match your input. Your UPS **WILL NOT CONVERT** the voltage or frequency.

**15. Grounding Terminal:** This terminal connects to a grounding electrode conductor. **IT IS NOT SAFE TO OPERATE YOUR UPS WITHOUT CONNECTING IT.** The recommended conductor size is 6 AWG based on the UL 1778 standard. Follow all applicable local electrical wiring regulations.

**16. Stabilizers:** These supports extend to keep your UPS from rolling or tipping.

**17. Battery Module Input Connector:** Use this connector to daisy-chain additional battery modules to the first. Remove the cover panel for access. Refer to the battery module's owner's manual for connection instructions and safety warnings.

**18. Battery Module Output Cable:** Use this cable to connect the battery module to the power module (or to another battery module when using more than one). The power module will not start without a connection to a charged battery module. Refer to the battery module owner's manual for connection instructions and safety warnings.

**19. Tower Mounting:** For additional stability during tower mounting of BP240V10RT3U External Battery Module, you can order Tripp Lite base stands (model #: 2-9USTAND) sold separately.

## Installation

### INVERTER OPERATION DIP SWITCH SETTINGS

Using a small tool, set the four Inverter Operation DIP Switches (located on the rear panel of your UPS) to match your input voltage, input frequency and desired operational mode.

#### Input Voltage Selection

(DIP Switches #1 & #2)

These DIP switches must be set to match your input voltage. Your UPS **WILL NOT CONVERT** the voltage.

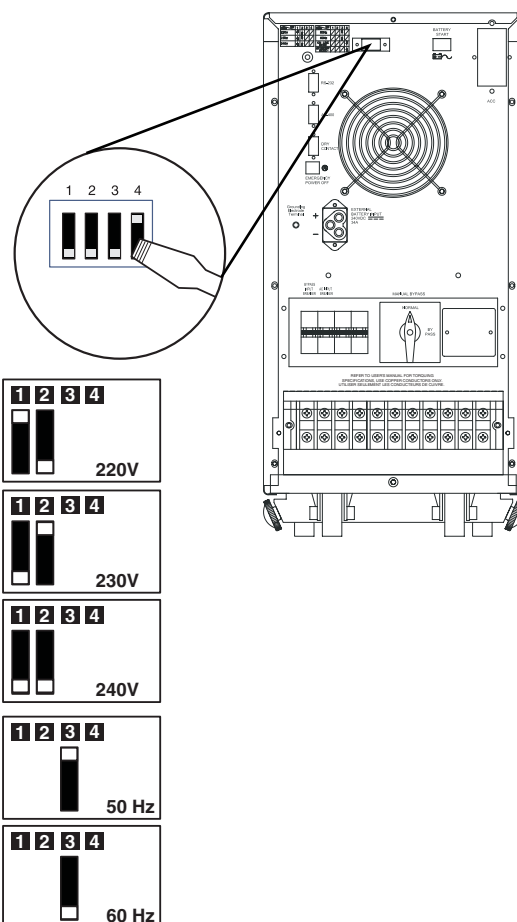
Input Voltage	DIP Switch Position
220V	#1 UP & #2 DOWN
230V	#1 DOWN & #2 UP
240V	#1 DOWN & #2 DOWN

#### Input Frequency Selection

(DIP Switch #3)

Your Input Frequency setting **MUST** match your input frequency. Your UPS **WILL NOT CONVERT** the frequency.

Input Frequency	DIP Switch Position
50 Hz	#3 UP
60 Hz	#3 DOWN



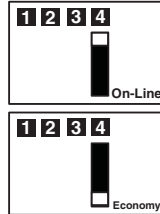
# Installation *(continued)*

## Operational Mode Selection

(DIP Switch #4)

The "On-Line" Mode provides on-line operation with zero transfer time. The "Economy" Mode provides line-interactive operation for increased efficiency when on-line protection is unnecessary, thus reducing operating costs without affecting your UPS's output reliability during a power outage.

Operational Mode	DIP Switch Position
On-Line	#4 UP
Economy	#4 DOWN



## UPS LOCATION

Move your UPS over short distances using its wheels. Stabilize the UPS by releasing the stabilizers on each side of the unit. NOTE: Do not stack the UPS System power module or external battery modules.

## INPUT AND OUTPUT CONNECTION

### WIRING SELECTION

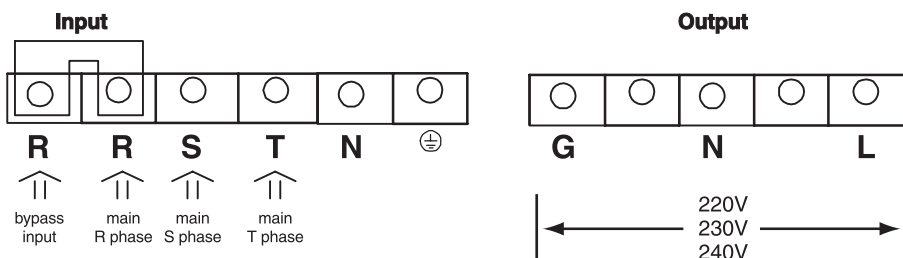
Choose appropriate cabling (cabling should have a temperature rating of 70° C and 6 AWG size) to connect your UPS to an AC power supply and your equipment to your UPS.

### WIRING CONNECTIONS

Connect your wiring to the input and output terminal blocks located on the lower rear panel of your UPS (see figure below).

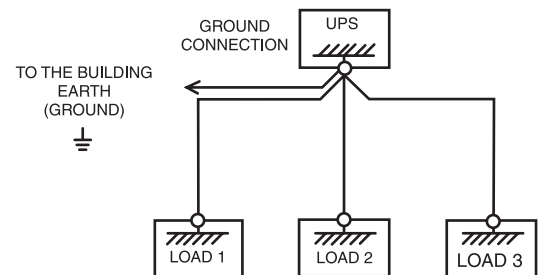
#### CAUTION!

*Qualified personnel should follow all procedures prescribed by N.E.C. and other local codes for hardwiring devices to a utility source. Ensure that cables are fitted with cable sleeves and are secured by connector clamps. Tighten connections with a torque of not less than 35 inch-pounds.*



NOTE: when shipped from the factory, bypass input and main R phase terminals are shorted together.

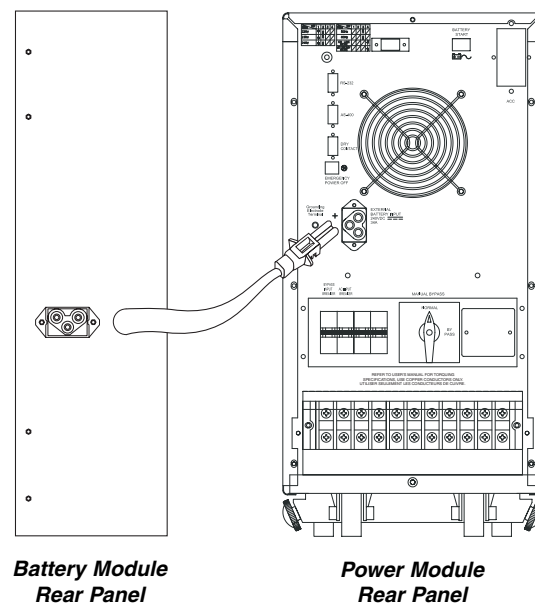
CAUTION: Observe the appropriate cable connection regulations [e.g. National Electrical Code (NEC) in the U.S.] at all times. Using cables of improper size may damage your equipment and cause fire hazards. Ground the UPS and the load equipment as shown in the figure.



# Installation *(continued)*

## EXTERNAL BATTERY MODULE CONNECTION (required)

Connect the battery module to the power module. Consult the owner's manual that came with your battery module. Fully insert the connector on the end of the battery module's cable into the connector on the rear panel of the power module. Small sparks may occur; this is normal. NOTE: the power module does not contain internal batteries and will not start until a battery module is connected. The battery modules are fully charged prior to shipping. However, before expecting full backup capability (particularly if the battery module has been stored for an extended period) after the UPS system is connected to a utility power source, allow the battery module to recharge for 12 hours. Once the UPS system is in use, it will charge the batteries and maintain the charge level automatically. If needed, connect additional battery modules in a daisy-chain with each module's cable inserted into the previous module's connector.



## BATTERY CONDITION VERIFICATION

When the UPS is operating from battery power, the alarm and LCD Display will both alert you to the UPS battery's charge condition.

Battery Charge Condition	Alarm	LCD Display
FULL	Short Beep (every 2 seconds)	ON BATTERY BATT = XXV XX%
LOW	Short Beep (every 1/2 second)	BATTERY LOW BATT = XXV XX%
UNDER	Continuous Beep	BATTERY UNDER SHUT DOWN

# Operation (Normal Conditions)

## TURNING THE UPS ON

- Make sure the UPS is properly installed (see Installation section) and the Manual Bypass Key is set to NORMAL.
- Turn the AC Input and Bypass AC Input Circuit Breakers ON.
- If your AC input is providing power normally within your selected range (see Input Voltage Selection, and Specifications), your connected load will energize. However, the UPS's inverter is not yet on. Press the front "ON/OFF" switch ON to begin inverter operation.
- If your AC input is not providing power normally, you have the option of starting from battery. (Your battery must be at least partially charged for this operation to succeed.) Press and hold both the "Battery Start" switch and the "ON/OFF" switch for three seconds to start your UPS in "ON BATTERY" mode. Note that some electronic equipment may draw more amps during startup; when starting from battery, consider reducing the initial load on the UPS.
- The UPS will perform a brief self-test and show the results on the LCD Display. (See Self-Test section, for display sequence.) After a successful self-test, the UPS will provide AC power from the inverter to your load.

## TURNING THE UPS OFF

- Press the front "ON/OFF" Switch OFF. Your load will still be energized. The inverter is now off, but your UPS is not fully deactivated. The LCD Display will show "ON BYPASS."
- Turn the AC Input and Bypass AC Input Circuit Breakers OFF. Your load will no longer be energized, and the LCD display will be dark.

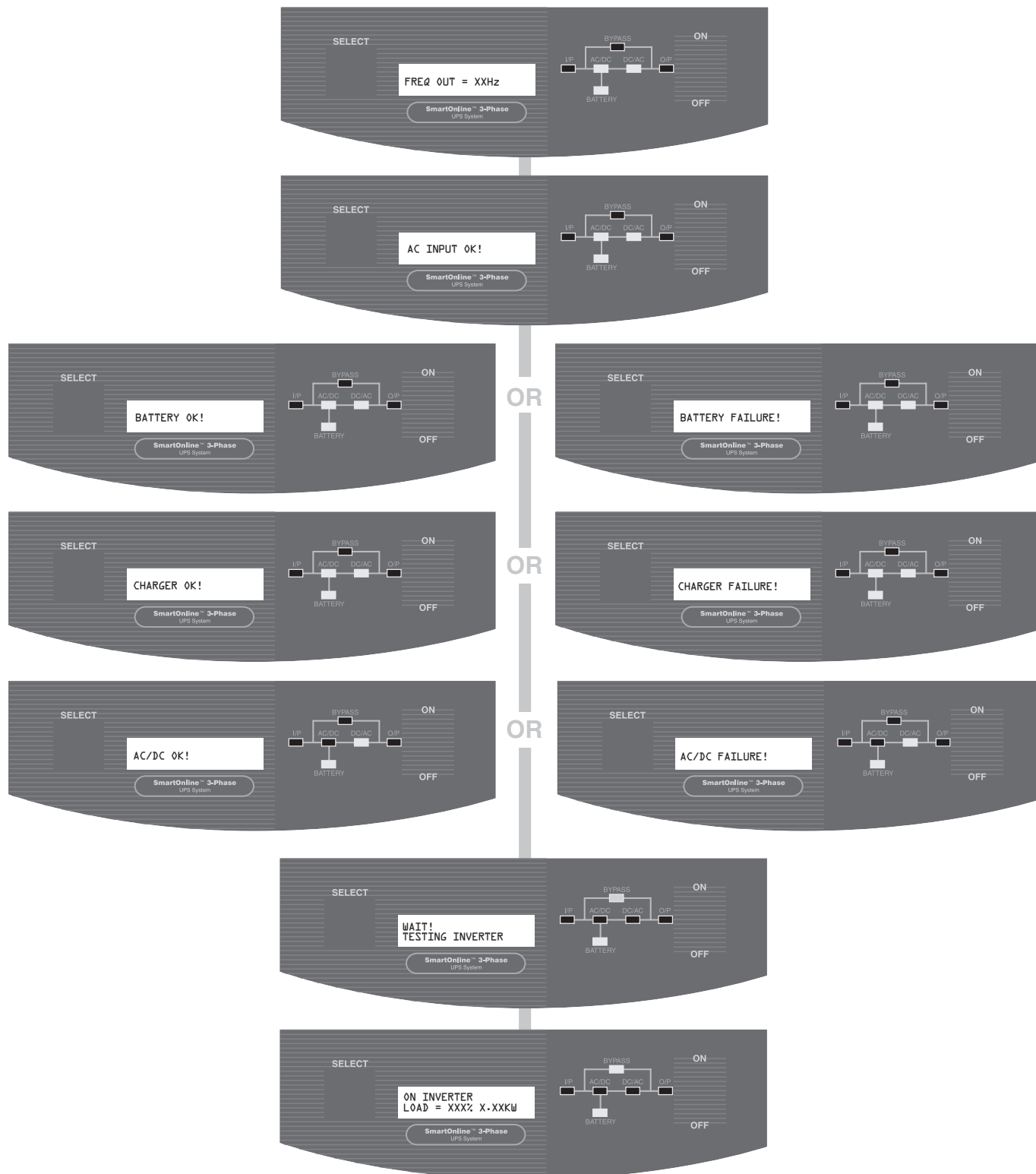


# Operation (Normal Conditions) *(continued)*

## SELF-TESTING

When you turn the UPS ON, it will perform a brief (about 25 second) self-test. See figure below for display sequence.\*

\*Note: If starting from battery, the BATTERY LED will be lit and the I/P and BYPASS LEDs will not. The final LCD display in the diagram below appears when the UPS is operating normally under utility-supplied AC input power.

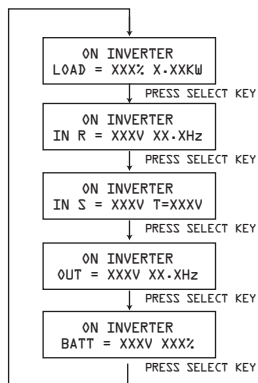


# Operation (Normal Conditions) *(continued)*

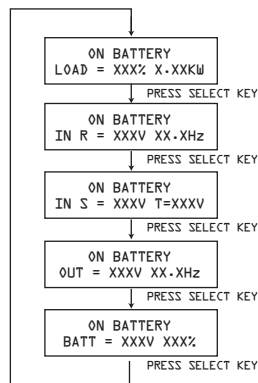
## LCD DISPLAY SELECT SWITCH

Momentarily press the “SELECT” switch on the front panel to browse through different power readings on the LCD Display. The LCD Display will show which one of four operational modes your UPS is currently in: Normal, Economy, On-Battery, or Bypass. Also, as you press the “SELECT” switch, the LCD Display will browse through load, input, bypass, output and battery conditions.

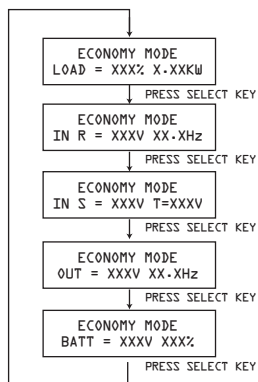
### "NORMAL" MODE OPERATION



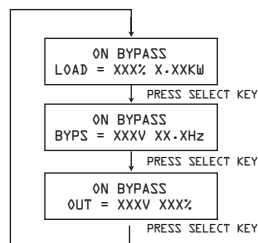
### "ON-BATTERY" MODE OPERATION



### "ECONOMY" MODE OPERATION



### "ON BYPASS" MODE OPERATION



# Operation (Special Conditions)

## OPERATION ON BYPASS—VOLTAGE OUT OF RANGE

While in Bypass Mode, the UPS monitors the input voltage, which on Bypass equals the output voltage. If the output voltage passes out of an acceptable range (between 15% higher and 20% lower than nominal), the UPS displays the condition on its LCD and stops supplying output power to its load. If power levels return to an acceptable level, the UPS resumes supplying power to the load, and its LCD reports that output voltage was too high or too low at one time, but has returned to nominal.

Bypass Voltage Condition	LCD Display Message
>15% Higher than Nominal	BYPASS HI NO O/P
>20% Lower than Nominal	BYPASS LO NO O/P
Was Too High, Now Nominal	BYPASS WAS HI
Was Too Low, Now Nominal	BYPASS WAS LO

# Operation (Special Conditions) *(continued)*

## OPERATION ON OVERLOAD

When the UPS detects an output overload, it will commence a countdown (the length of time depending on the severity of the overload). If the UPS is still overloaded at the end of the countdown, the UPS will automatically shut down and go into Bypass Mode.

Overload Condition	LCD Display Message	Countdown to Shutdown
102% - 125%	OVERLOAD 102% LOAD=XXX% X.XXKW	1 minute
125% - 150%	OVERLOAD 125% LOAD=XXX% X.XXKW	30 seconds
>150%	OVERLOAD 150% LOAD=XXX% X.XXKW	2 seconds

## BATTERY CHARGE WARNINGS

Since your UPS can provide battery backup only for as long as the batteries remain charged, these warnings should be acted on immediately.

Battery Charge Warning	LCD Display Message
Battery charge nearly depleted	BATTERY LOW
Low battery shutdown	LOW BATTERY! SHUT DOWN...

## OPERATION UNDER SHUTDOWN

Your UPS will shut down and the LCD will display a message if it detects one of the following conditions. Note: For all conditions, the “Input,” “Output” and “Bypass” LEDs will be illuminated.

Condition	LCD Display Message
Extended Overload (>150%)	OVERLOAD XX% SHUT DOWN...
Output Short Circuit	SHORT CIRCUIT! SHUT DOWN...
Remote Shutdown Command (from DB9 interface)	REMOTE SHUT DOWN...
Remote Shutdown Command (from RJ11 interface)	EMERGENCY STOP! SHUT DOWN...
Internal Faults	INVERTER TOO LO SHUT DOWN...
	INVERTER TOO HI SHUT DOWN...
	DC BUS +/- HIGH/LOW SHUT DOWN...
	OVER TEMPERATURE SHUT DOWN...

# Operation (Special Conditions) *(continued)*

## OPERATION OF MANUAL BYPASS SWITCH

Turn this switch to “BYPASS” before performing any maintenance on the UPS with the connected load supported. Connected equipment will receive filtered AC mains power, but will not receive battery power in the event of a blackout.

### SWITCHING UPS TO “BYPASS” MODE

- Turn the “ON/OFF” Switch OFF. (LCD will read "ON BYPASS.")
- Turn the “Manual Bypass” Switch clockwise from NORMAL to BYPASS.
- Turn the AC Input Circuit Breaker OFF.

### SWITCHING UPS TO “NORMAL” MODE

- Turn the AC Input Circuit Breaker ON.
- Turn the “Manual Bypass” Switch counterclockwise from BYPASS back to NORMAL.
- Turn the “ON/OFF” Switch ON.

## Communications

### RS-232 INTERFACE

This female DB9 port connects your UPS via an RS-232 cable to a workstation or server equipped with Tripp Lite software. The port uses RS-232 communications to report UPS status and power conditions. Using this port, Tripp Lite software can monitor and manage network power and automatically save open files and shut down equipment during a blackout. Contact Tripp Lite Customer Support at (773) 869-1234 for information on available SNMP, network management and connectivity software and products.

RS-232 signals and operations include: load level, battery status, battery level, operation mode, AC input voltage, AC output voltage, AC input frequency, temperature inside unit, set shut-down delay time, enable/disable alarm and remote shutdown.

#### Hardware:

Baud Rate:	2400 BPS
Data Length:	8 bits
Stop Bit:	1 bit
Parity:	NONE

#### Pin assignment:

Pin 2:	TXD (Transmit Data)
Pin 3:	RXD (Receive Data)
Pin 5:	GND (Signal Ground)

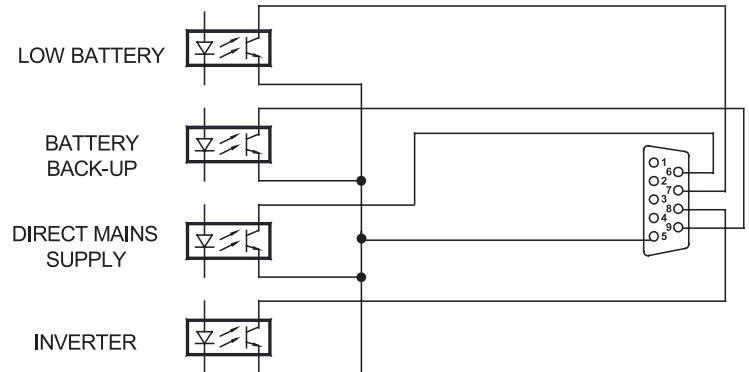
# Communications *(continued)*

## AS-400 INTERFACE

This female DB9 port connects your UPS to an IBM AS-400 computer via the included AS-400 cable. The port uses AS-400 communications to report UPS status. It can be used to allow an AS-400 to automatically save open files and shut down its operating system during a blackout. AS-400 protocol includes: operation on inverter, operation on AC power supply, operation on battery and low battery alarm.

### Pin assignment:

Pin 5: Common  
 Pin 6: Operation on AC power supply  
 Pin 7: Low battery alarm  
 Pin 8: Operation on inverter  
 Pin 9: Operation on battery



**AS-400 INTERFACE TABLE**

	Pin 6,5	Pin 7,5	Pin 8,5	Pin 9,5
Battery	OFF	*	ON	ON
Low Battery	OFF	ON	ON	ON
Direct Mains Supply	ON	OFF	OFF	OFF
Inverter	OFF	*	ON	*

\* Inactive: may be in either state.

## DRY CONTACT INTERFACE

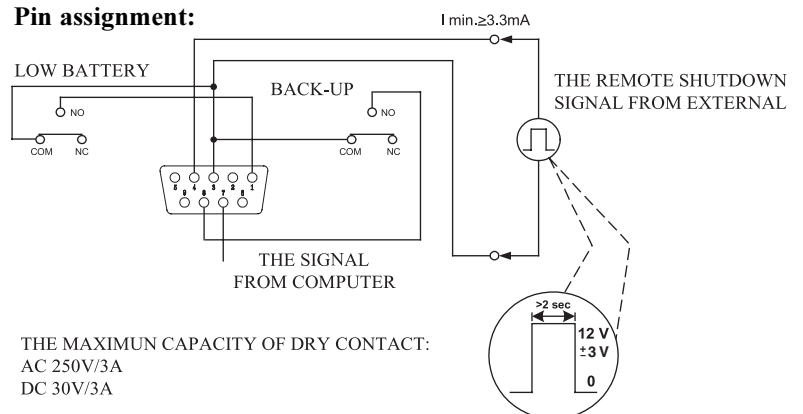
This female DB9 contact-closure port allows your UPS to send contact-closure signals to indicate that it is on battery back-up mode and if its batteries are running low. The port can also receive a remote shutdown signal.

**DRY CONTACT INTERFACE TABLE**

UPS Operating Mode	Pin 8,3	Pin 1,3
Normal	OPEN	OPEN
Back Up	CLOSE	*
Low Battery	CLOSE	CLOSE

\* Inactive: may be in either state.

### Pin assignment:

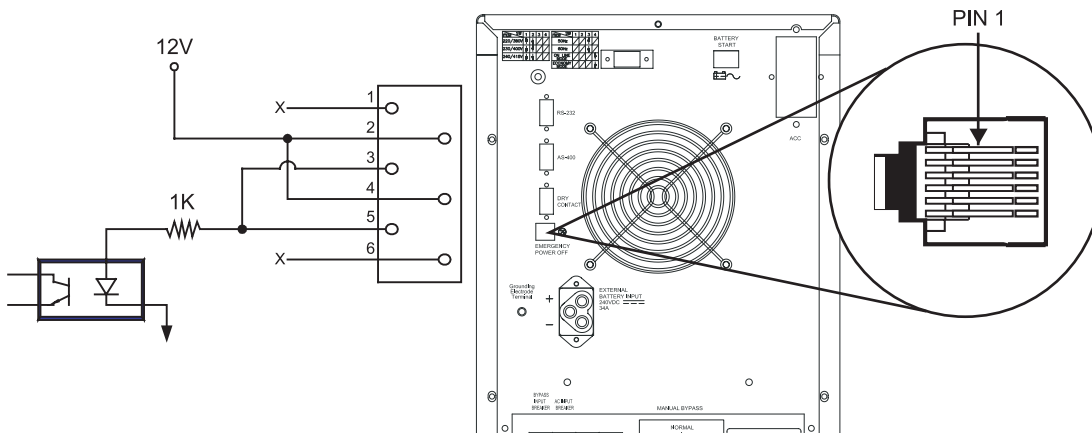


# Communications *(continued)*

## REMOTE EMERGENCY POWER OFF (EPO)

This optional feature is only for those applications which require connection to a facility's Emergency Power Off (EPO) circuit. When the power module is connected to this circuit, it enables emergency shutdown of the output. Using the included cable, connect the power module's EPO port to a user-supplied remote switch. The pin assignments for the EPO port are shown in the following diagram. Note: if there is a short between pins 2 and 3, 2 and 5, 4 and 5, or 3 and 4, the UPS system will power off.

### Pin assignment:



## Service

Your SmartOnline UPS is covered by the 2-year limited warranty period described below. A variety of service contracts is also available from Tripp Lite, including start-up service contracts and 3- to 5-year SafeSure on-site service contracts. For more information, call Tripp Lite Customer Service at (773) 869-1234.

## Warranty

### 2-Year Limited Warranty

TRIPP LITE warrants its products including batteries to be free from defects in materials and workmanship for a period of two years from the date of initial purchase. After 90 days from the date of purchase, TRIPP LITE's obligation under this warranty is limited to replacing parts on such defective products. To obtain service under this warranty, you must call TRIPP LITE or an authorized TRIPP LITE service center. Products must be returned to TRIPP LITE or an authorized TRIPP LITE service center with transportation charges pre-paid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase. This warranty does not apply to equipment which has been damaged by accident, negligence or misapplication or has been altered or modified in any way. This warranty applies only to the original purchaser who must have properly registered the product within 10 days of purchase.

The warranties of all TRIPP LITE surge suppressors are null and void if they have been connected to the output of any UPS system. The warranties of all TRIPP LITE UPS Systems are null and void if a surge suppressor has been connected to its output receptacles.

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The policy of TRIPP LITE is one of continuous improvement. Specifications are subject to change without notice.

# Specifications

The specifications listed below are for Tripp Lite model SU10K3/1X which includes two modules: a power module and a battery module. The two modules are also sold separately with their own individual model numbers: power module (individual model #: SU10K3/1INTPM) and battery module (individual model #: BP240V10RT3U).

## Model: SU10K3/1X

### Includes: • Power Module

Model: SU10K3/1INTPM  
Series: AGPS4984

### • Battery Module

Model: BP240V10RT3U  
Series: AGBP240V7RT3U

Input	
Input Voltage	270-485V, Y, 3Ø4W
Input Frequency	50/60 Hz $\pm$ 3 Hz (selectable)
Input Current	15A
Inrush Current	<200A
Power Factor (Full Load)	>0.95
Efficiency (Full Load/On-Line)	>90%
Circuit Breakers	32A 3 pole (AC Input Breaker), 63A 1 pole (Bypass AC Input Breaker)

Output	
VA	10000
Watts (Power Factor: 0.8)	8000
Waveform (On-Line)	Sinewave
Waveform (On-Battery)	Sinewave
Output Voltage (RMS)	220/230/240V AC 1Ø2W
Output Frequency	50/60 Hz ( $\pm$ 0.2 Hz on battery)
Voltage Regulation	$\pm$ 2%
Max. Harmonic Distortion (Non-Linear Full Load)	<3%
Overload Capabilities	$\leq$ 102% (continuous), 102%~125% (1 min.), 125%~150% (30 sec.), >150% (2 sec.)
Short Circuit Capability	$\geq$ 160A
Crest Factor	3:1

Battery	
Battery Type	12V/9 AH
Battery Quantity	20
Protection	2x 30A/600V fuse
Typical Backup Time (Full Load)	6+ min.
Typical Backup Time (Half Load)	18+ min.

Operation	
On-Line Transfer Time (Line to Battery, Battery to Line)	0 ms
Audible Noise (Full Load @ 1 meter)	<55 dBA

Indicators	
Includes an LCD Display and LEDs (AC Line In, AC to DC, DC to AC, AC Output, Battery Back-Up, Bypass).	

Communications	
Includes an RS-232 DB9 female connector, an AS-400 DB9 female connector, a dry contact DB9 female connector and an accessory slot.	

Connections	
Input Terminal Block	60A
Output Terminal Block	60A

Physical Specifications	
Power Module Dimensions (H x W x D):	56.5 x 28 x 63 cm (22.2 x 11 x 24.8 in)
Power Module Shipping Weight:	46 kg (101.3 lb)
Battery Module Dimensions (H x W x D):	44.5 x 13.3 x 57.2 cm (17.5 x 5.25 x 22.5 in)
Battery Module Shipping Weight:	86 kg (189.6 lb)

+ Backup times are expandable with additional Battery Modules (model: BP240V10RT3U) sold separately.  
The policy of Tripp Lite is one of continuous improvement. Specifications are subject to change without notice.



1111 W. 35th Street, Chicago, IL 60609 USA  
773.869.1234 (USA) • 773.869.1212 (International)  
[www.tripplite.com](http://www.tripplite.com)